The Simple Nondestructive Modification For Film Holders Exclusively For a Mamiya M-645 Camera

Last year (2023),I was looking for a few extra 120 roll film holders for a Mamiya M-645 on eBay. I did find many, as well as 220 roll film holders. I noticed that the cost of the 120 holders were about twice that of the 220 holders. YEAH! – I Knew the reason for that increase of pricing. 120 roll films are still manufactured, and available, while 220 is not. (Only very recently has One Company reintroduced the 220 film.) However, I am "Rolling My Own" X-Ray films onto 120/220 spools, with strips of 5 mil plastic opaque "leaders" and "trailers". The M-645, as well as some other Medium Format cameras have mechanical image counters, so the black backing paper is not needed. (Besides - most X-Ray films are about twice the thickness.) I would only need complete backing paper IF the camera I was using had that "little red window" to let you know when to stop advancing the film for the next image taking.

After buying the 120 and a 220 roll film holders I noticed that there was no difference. AT FIRST LOOK. There was One small difference. Here, below, are the two "different" holders for a Mamiya M-645:

So.... Which one is for 120 film // And which one is for 220 film? Ok! This is not really fair of me to show only this so I will show later on - After I make my point in this article. So.... Read on.

((There are a few other photographers using other medium format makes and models of the Mamiya cameras who would say that there are "differences". Well... Let's Look at what I have found for the Mamiya M-645. And ONLY That Model.))

Here are a few different views of the film holders I am using:

Showing The 'Difference' Between
The Pressure Plates of a 120 & 220 Holder
(That's Correct - There Is NO Difference.)
AND Both exert the Same Pressure onto the Film.

Only after a close "study" of both holders can one determine which is the 120 holder from the 220 holder. That Last Photo (the one on the RIGHT above Is a 220 Holder.

See those Two Little Screws, which attach and hold in place, one little part that appears to be a “wedge” or “cam” part. THAT is the ONLY difference. Both are identical to one another - save for that One Little Screwed In Wedge. Remove THAT and one can use that 220 holder for 120 size roll film. The size of the complete assemblies are virtually the same. The size of the “Pressure Plates” are the SAME. The pressure exerted on the back of the film, that presses it to the focal plane on the guides built into the body of the camera is the SAME. The rollers, all of them, are the SAME. So. There ya go. You CAN use a 220 roll film holder as to hold a spool of 120 roll film.

NOTE=>

REMEMBER TO KEEP, IN A SAFE PLACE, THAT WEDGE AND SCREWS FOR LATER ON WHEN YOU WANT TO RETURN THE HOLDER TO IT’S ORIGINAL DESIGN.

I do hope that this clarifies any questions about this nondestructive modification which a few others have said it will not work – And Or somehow damage the Mamiya M-645. I have run over 40 rolls of 120 through my Mamiya M-645 with absolutely No Problems whatsoever. AND I have also used four 220 hand rolls of “*Fuji HR-U*” X-Ray film through it using the little wedge put back in to have a correct count of negatives. Works with 120 as well as 220 size films.

May The Light Be With You.

James R. Kyle, Saint Louis, Missouri, U.S. of A.